



Atty. Dkt. No. 047071-0107

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Harry A. ATWATER, Jr. et al.  
Title: WAFER BONDED VIRTUAL  
SUBSTRATE AND METHOD  
FOR FORMING THE SAME  
Appl. No.: 10/761,918  
Filing Date: 1/20/2004  
Examiner: Duy-Vu DEO  
Art Unit: 1765  
Confirmation 4108  
Number:

**TERMINAL DISCLAIMER**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Your Petitioner, California Institute of Technology, having its principal place of business at 1200 East California Boulevard, Pasadena, California 91125, represents that it is the owner of the entire right, title, and interest in and to U.S. Patent Application Serial No. 10/761,918, filed 1/20/2004, which is a continuation of U.S. Patent Application No. 10/125,133, filed 4/17/2002, by virtue of an Assignment filed and recorded on 5/15/2002, on Reel/Frame 012893/0624, in the United States Patent and Trademark Office, a copy of which is attached hereto as APPENDIX A.

Further, your Petitioner represents that it is the owner of U.S. Patent No. 7,019,339, which issued on U.S. Patent Application No. 10/125,133, filed 4/17/2002, by virtue of the same Assignment.

08/14/2006 HALI11 00000104 10761918

01 FC:2814

65.00 0P

Your Petitioner, California Institute of Technology, hereby disclaims the terminal part of the term of any patent granted on the above identified patent application which would extend beyond the full statutory term, as shortened by any terminal disclaimer, of U.S. Patent 7,019,339, and hereby agrees that any patent so granted on the above identified patent application shall be enforceable only for and during such period that the legal title to U.S. Patent 7,019,339 shall be the same as the legal title to any patent granted on the above identified patent application, this agreement to run with any patent granted on the above identified patent application and to be binding upon the grantee, its successors or assigns.

In making the above disclaimer, Petitioner does not disclaim any terminal part of any patent granted on the above identified patent application, prior to the full statutory term of U.S. Patent 7,019,339 as defined in 35 U.S.C. §§154-156 and 173, in the event that U.S. Patent 7,019,339 expires for failure to pay a maintenance fee, is held unenforceable or is found invalid in a final judgment by a court of competent jurisdiction, is statutorily disclaimed in whole or terminally disclaimed under 37 CFR §1.321(a), has all claims canceled by a reexamination certificate or as a result of an interference proceeding, or is otherwise not deemed to provide the rights conveyed by 35 USC §154, prior to the full statutory term of U.S. Patent 7,019,339 as defined in 35 USC §§154-156 and 173, except for the separation of legal title stated above. Further, Petitioner does not disclaim any terminal part of a patent granted on the above identified patent application that would extend beyond the present termination of U.S. Patent 7,019,339, in the event that such present term is extended by virtue of compliance with the conditions for term extension of any present or future patent term extension provisions of the patent law, including but not limited to 35 U.S.C. §§155, 155A or 156, and without waiving Petitioner's right to extend the term of a patent granted on the above identified patent application to the extent provided by law.

The undersigned, being the Attorney of Record for the above identified patent application, and duly authorized to act on behalf of Petitioner, certifies that he has reviewed the Assignment attached as APPENDIX A, and to the best of his knowledge and belief, legal title to the above identified patent application and U.S. Patent 7,019,339 rests with Petitioners, California Institute of Technology. The undersigned declares that all statements made herein of his own knowledge are true and that all statements made on information and

belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the above-identified application or any patent issuing therefrom.

Respectfully submitted,

Date 8/11/06

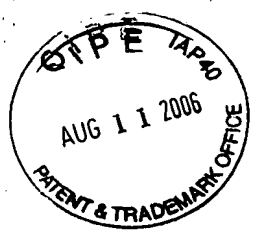
By 

FOLEY & LARDNER LLP  
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Leon Radomsky  
Attorney for Applicant  
Registration No. 43,445



UNITED STATES  
PATENT AND  
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JULY 17, 2002

JUL 29 2002

Chief Information Officer  
Washington, DC 20231  
www.uspto.gov

PTAS

MYERS, DAWES & ANDRAS LLP  
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19900 MACARTHUR BOULEVARD  
SUITE 1150  
IRVINE, C.A. 92612



\*102094935A\*

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 05/15/2002

REEL/FRAME: 012893/0624  
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:  
ATWATER, HARRY A., JR.

DOC DATE: 04/17/2002

ASSIGNOR:  
ZAHLER, JAMES M.

DOC DATE: 04/17/2002

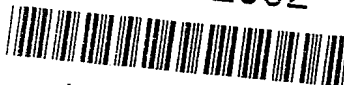
ASSIGNEE:  
CALIFORNIA INSTITUTE OF TECHNOLOGY  
1200 EAST CALIFORNIA BOULEVARD  
PASADENA, CALIFORNIA 91125

SERIAL NUMBER: 10125133  
PATENT NUMBER:

FILING DATE: 04/17/2002  
ISSUE DATE:

SEDLEY PYNE, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

05-20-2002



102094935

cket No.: CIT.PAU.05

SHEET

U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office

Tab settings → → → ▼

To the Honorable Commissioner of Patents and Trademarks, please forward the attached original documents or copy thereof

1. Name of conveying party(ies):

Harry A. Atwater, Jr.  
James M. Zahler

5.15.02

Additional names(s) of conveying party(ies) ☐ Yes ☒ No

3. Nature of conveyance:

- ☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Other \_\_\_\_\_

Execution Date: April 17, 2002

2. Name and address of receiving party(ies):

Name: California Institute of Technology

Internal Address: \_\_\_\_\_

Street Address: 1200 East California Boulevard

City: Pasadena State: CA ZIP: 91125

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application number(s) or patent numbers(s):

If this document is being filed together with a new application, the execution date of the application is: \_\_\_\_\_

A. Patent Application No.(s)

10/125,133

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Daniel L. Dawes

Internal Address: MYERS, DAWES & ANDRAS LLP

3/17/2002 TDI A21 00000191 10125133

1 FC:581

40.00 OP

Street Address: 19900 MacArthur Boulevard

Suite 1150

City: Irvine State: CA ZIP: 92612

6. Total number of applications and patents involved:

1

7. Total fee (37 CFR 3.41): \$ 40.00

- ☒ Enclosed - Any excess or insufficiency should be credited or debited to deposit account.  
☐ Authorized to be charged to deposit account

8. Deposit account number:

01-1960

(Attach duplicate copy of this page if paying by deposit account)

DO NOT USE THIS SPACE

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Daniel L. Dawes

Name of Person Signing

Signature

May 7, 2002

Date

Total number of pages including cover sheet, attachments, and document:

3

**ASSIGNMENT**

CIT Case No. 3453

For good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR(S),

Harry A. Atwater, Jr.

hereby sells, assigns and transfers to ASSIGNEE, California Institute of Technology, having its statewide administrative offices located at 1200 East California Boulevard, Pasadena, California 91125, and the successors, assigns and legal representatives of the ASSIGNEE, all of its rights, title and interest for the United States and its territorial possessions and in all foreign countries in and to, any and all improvements which are disclosed in the invention entitled:

**A Method of Using a Germanium Layer Transfer to Si for Photovoltaic Applications and Heterostructure Made Thereby**

and which is found in

- (a) \_\_\_\_\_ U.S. provisional application filed herewith and listing the above named persons as inventors  
(b) \_\_\_\_\_ U.S. patent application filed herewith and listing the above named persons as inventors  
(c) X U.S. application serial nos. 10/125,133, filed on 04/17/2002  
(d) \_\_\_\_\_ U.S. Patent No.: \_\_\_\_\_, issued \_\_\_\_\_

and any legal equivalent thereof in a foreign country, including the right to claim priority and, in and to, all Letters Patent to be obtained for said invention by the above application or any continuation, division, continuation-in-part, extension, conversion to 35 USC 111(a) or substitute thereof, and any reissue, reexamination or extension of said Letters Patent and all under all International Conventions for the Protection of Industrial Property;

ASSIGNOR(S) hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment;

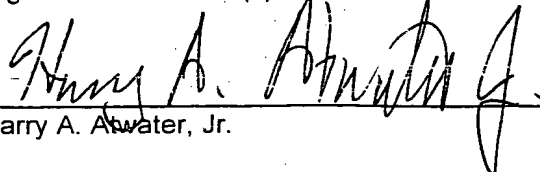
ASSIGNOR(S) further covenants that the ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNOR and will testify as to the same in any interference, litigation, or proceeding relating thereto and will promptly execute and deliver to ASSIGNEE or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue or enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof. An attorney of record is authorized and requested by the execution of this assignment to insert into this assignment the filing date and serial number of said application when officially known.

AND the ASSIGNOR(S) requests the Commissioner of Patents and Trademarks to issue said Letters Patent of the United States and any reissue or extension thereof to the ASSIGNEE, California Institute of Technology.

executed this

17<sup>th</sup> day of April, 2002

Signature of Inventor(s)

  
\_\_\_\_\_  
Harry A. Atwater, Jr.

**ASSIGNMENT**

CIT Case No. 3453

For good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR(S),

James M. Zahler

hereby sells, assigns and transfers to ASSIGNEE, California Institute of Technology, having its statewide administrative offices located at 1200 East California Boulevard, Pasadena, California 91125, and the successors, assigns and legal representatives of the ASSIGNEE, all of its rights, title and interest for the United States and its territorial possessions and in all foreign countries in and to, any and all improvements which are disclosed in the invention entitled:

**A Method of Using a Germanium Layer Transfer to Si for Photovoltaic Applications and Heterostructure Made Thereby**

and which is found in

- (a) \_\_\_\_ U.S. provisional application filed herewith and listing the above named persons as inventors  
(b) \_\_\_\_ U.S. patent application filed herewith and listing the above named persons as inventors  
(c) X U.S. application serial nos. 10/125,133, filed on 04/17/2002  
(d) \_\_\_\_ U.S. Patent No.: \_\_\_\_\_, issued \_\_\_\_\_

and any legal equivalent thereof in a foreign country, including the right to claim priority and, in and to, all Letters Patent to be obtained for said invention by the above application or any continuation, division, continuation-in-part, extension, conversion to 35 USC 111(a) or substitute thereof, and any reissue, reexamination or extension of said Letters Patent and all under all International Conventions for the Protection of Industrial Property;

ASSIGNOR(S) hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment;

ASSIGNOR(S) further covenants that the ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNOR and will testify as to the same in any interference, litigation, or proceeding relating thereto and will promptly execute and deliver to ASSIGNEE or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue or enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof. An attorney of record is authorized and requested by the execution of this assignment to insert into this assignment the filing date and serial number of said application when officially known.

AND the ASSIGNOR(S) requests the Commissioner of Patents and Trademarks to issue said Letters Patent of the United States and any reissue or extension thereof to the ASSIGNEE, California Institute of Technology.

executed this

Signature of Inventor(s)

17<sup>TH</sup> day of APRIL, 2002

  
James M. Zahler